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USER GUIDE

1x4 HDMI 1.3 Extender / Splitter over Single CAT5 with 3D Support and Local Output

Model #: HDM3D-C5SP-4

HD ready 1080p HDMI HDCP 7.1CH Audio X.V.Color

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Section 1: Getting Started

1.1 Important Safeguards

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
    - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
    - Repair or attempted repair by anyone not authorized by us.
    - Any damage of the product due to shipment.
    - Removal or installation of the product.
    - Causes external to the product, such as electric power fluctuation or failure.
    - Use of supplies or parts not meeting our specifications.
    - Normal wear and tear.
    - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2 Safety Instructions

The Avenview HDM3D-C5SP-4 HDMI 1.3 Extender / Splitter over CAT5 with Full 3D Support has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment's, the HDM3D-C5SP-4 should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

1.3 Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

1.4 Introduction

The Avenview HDM3D-C5SP-4 HDMI 1.3 over Single CAT5 with Full 3D Support Distribution Amplifier with Local Output provides the most flexible solution by which the high definition video and high quality audio can be transmitted to different locations over a long distance. These devices can cascade, allowing you to extend HDMI compliant displays almost anywhere. The input HDMI source can be duplicated and distributed to up to 4 HDMI enable displays through cost effective Cat-5/5e cables and RJ-45 to HDMI mini-extenders HDM3D-C5-R-M or Long Range HDM-C53X-R. With the built in equalization, the input HDMI cable can be extended up to 20 meters (66 feet) long under Full HD, and make the overall transmission distance superior than regular HDMI splitters or matrix switches in the market. With use of Long Range Receiver, HDMI signal can be extended to 50 meters (165 feet).

- Supports HDMI Deep Color & Full 3D
- HDMI 1.3c compliant
- HDCP compliant
- Regenerates the HDMI signal
- HDMI local output
- Supports default HDMI EDID and has the ability to learn the EDID of the displays
- Extends up to 20m (66ft) of input HDMI cable with Mini Receiver
- Extends up to 60m (200ft) (720p / 1080i) of output CAT5/6 cable with Long Range Receiver
- Extends up to 40m (130ft) (1080p) of output CAT5/6 cable
- Pure unaltered uncompressed 7.1ch digital HDMI over LAN cable transmission
- Allows cascading
- Perfectly integrated with other HDM-C5XD Series products

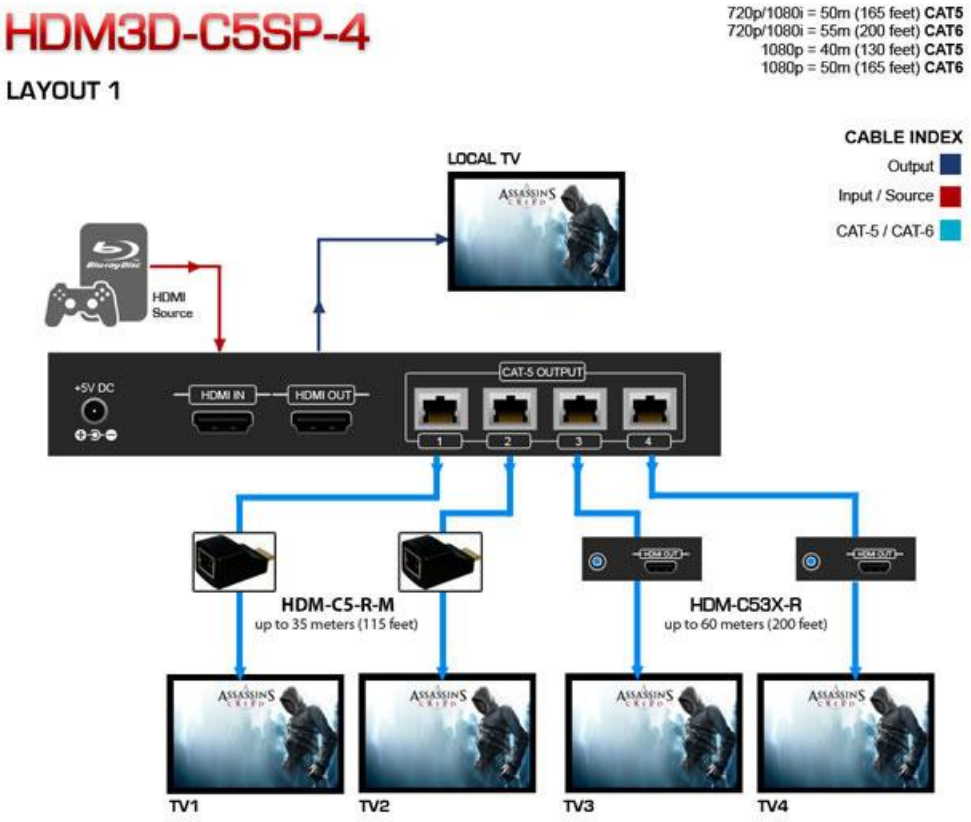
1.5 Package Contents

Before you start the installation of the converter, please check the package contents.

- HDM3D-C5SP-4 x 1
- Power Adapter (+5VDC, 4A) x 1
- User's Manual x 1

1.6 Before Installation

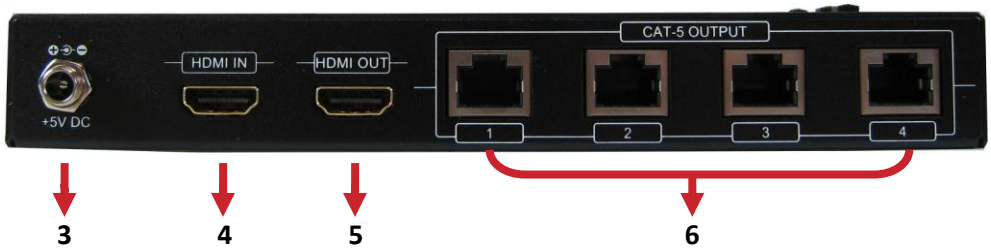
- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.



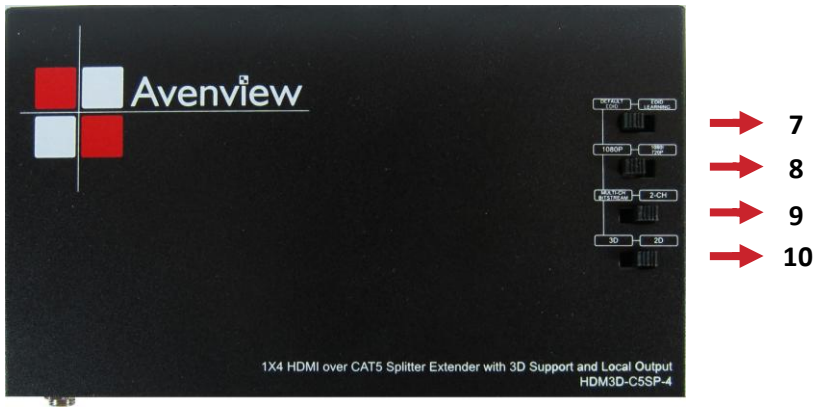
1.7 Panel Description

1.7.1 Front Panel

1.7.2 Rear Panel



1.7.3 Bottom Panel



1. **Power LED**	2. **Signal LED**
3. **Power Jack**	4. **HDMI Input**
5. **HDMI Local Output**	6. **CAT 5/6/7 Output 1 – 4**
7. **SW1: EDID Mode**	8. **SW2: EDID – Full HD Selection**
9. **SW3: EDID – Audio Selection**	10. **SW4: 3D/2D Selection**

1.8 EDID Learning

1. Power up the HDM3D-C5SP-4. Connect to HDMI OUTPUT with the display you want the HDM3D-C5SP-4 to learn its EDID.
2. To learn the display's EDID for source device connected to HDMI OUTPUT, Set SW1 to left Position. Power on and wait for about 2-3 seconds to complete the EDID learning process; the users do not need to power cycle again or even twice while plugging on different displays.

	Left Position	Right Position
SW1	EDID LEARNING	DEFAULT EDID
SW2	HD	FULL HD
SW3	AUDIO – 2 CHANNEL	AUDIO-MULTI CHANNEL
SW4	2D	3D

The instant switching is enabled only when the video and audio setting of the source has been adjusted to "Auto" or "Pass Through"

1.9 Installation

To setup Avenview HDM3D-C5SP-4 follow these steps for connecting to a device:

1. Turn off all devices including monitors / TV
2. Connect to a HDMI source (such as a Blu-Ray Disc player) to HDMI Input of HDM3D-C5SP-4
3. Connect the receiver HDM-C53X-R or HDM-C5-R-M to HDM3D-C5SP-4 from RJ45 Out with CAT5 / CAT6 cable
4. Plug in 5V 4A DC Power (supplied).
5. Power on the HDMI display
6. Power on HDMI Sources.

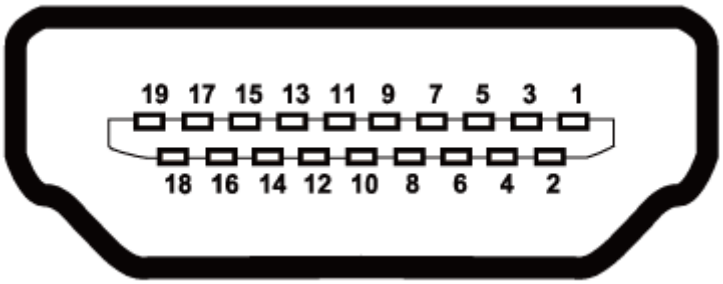
Section 2: Specifications

Item	Description
Units	HDM3D-C5SP-4
Unit Description	HDMI 1.3 Transmitter / Splitter over CAT5 / CAT6 with Full 3D Support
HDMI Compliance	HDMI Deep Colour & Full 3D
HDCP Compliance	Yes
Video Bandwidth	Single Link 225 MHz (6.75Gbps)
Supported Resolutions	480i / 480p / 720p / 1080i / 1080p60
Resolution and Distance	**Full HD:** (1080p) ~ 40meter (130feet) (CAT5e) / 50meter (165feet) (CAT6) **HD:** (720p/1080i) ~ 50meter (165feet) (CAT5e) / 60meter (200feet) (CAT6)
Audio Support	Surround Sound (up to 7.1 Ch) or Stereo Digital Audio
Equalization	Built-in
Input TMDS Signal	1.2 Volts (peak-to-peak)
Input DDC Signal	5 Volts (peak-to-peak, TTL)
ESD Protection	- Human body model — ±15kV (air-gap discharge) & ±8kV (contact discharge) - Core chipset — ±8kV
Input	1 x HDMI
Output	4 x Rj45
HDMI Connector	Type A (19 pin female)
RJ45 Connector	WE/SS 8P8C
Dimensions (L x W x H)	7.6” x 4.3” x 1.1”
Power Supply	5V 4A DC
Power Consumption	13 Watt (max)

Environmental

Operating Temperature	32˚ ~ 104˚F (0˚ to 40˚C)
Storage Temperature	-4˚ ~ 140˚F (-20˚ ~ 60˚C)
Relative Humidity	20~90% RH (no condensation)

2.1 HDMI PIN Definition

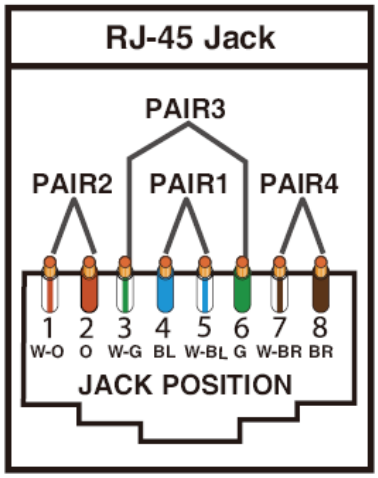


Type A (Receptacle) HDMI

Pin 1	TMDS Data2+	**Pin 11**	TMDS Clock Shield
Pin 2	TMDS Data2 Shield	**Pin 12**	TMDS Clock–
Pin 3	TMDS Data2–	**Pin 13**	NC
Pin 4	TMDS Data1+	**Pin 14**	Reserved (N.C. on device)
Pin 5	TMDS Data1 Shield	**Pin 15**	SCL
Pin 6	TMDS Data1–	**Pin 16**	SDA
Pin 7	TMDS Data0+	**Pin 17**	DDC/CEC Ground
Pin 8	TMDS Data0 Shield	**Pin 18**	+5V Power
Pin 9	TMDS Data0–	**Pin 19**	Hot Plug Detect
Pin 10	TMDS Clock+		

2.2 CAT5/6 PIN Definition

Data Link TIA/EIA-568-B		
PIN	Color	Function
1	W-O	TX0-
2	O	TX0+
3	W-G	TX1-
4	BL	TX2-
5	W-BL	TX2+
6	G	TX1+
7	W-BR	TXC-
8	BR	TXC+



Notice

1. *The length depends on the characteristics and quality of the cables. Higher resolutions and longer transmission distances require low skew cables (<25ns/100m) for best performance. Unshielded CAT6 with metal RJ-45 connectors is recommended.*

Performance Guide for HDMI over CAT 5/6 Cable Transmission

Performance rating		Type of category cable		
Wiring	**Shielding**	**CAT5**	**CAT5e**	**CAT6**
Solid	Unshielded (UTP)	★★★	★★★★	★★★★★
	Shielded (STP)	★★★	★★★	★★★★
Stranded	Unshielded (UTP)	★	★★	★★
	Shielded (STP)	★	★	★★
Termination		Please use **EIA/TIA-568-B** termination (**T568B**) at any time		

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